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10/797,171

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David W. Tipton

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09/06/2006

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EXAMINER

BUMGARNER, MELBA N

ART UNIT

PAPER NUMBER

3732

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/797,171

Applicant(s)

TIPTON ET AL.

Examiner

Melba Bumgarner

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/22/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 21 is objected to because of the following informalities: “at last” in line 4.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-3, 6, 28, and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Recitation of “the first body” in claim 2, “the body” in claim 28, “the other part slidable” in claim 29, lack sufficient antecedent basis. Limitation of claim 6 does not appear to further limit the claimed invention.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-7, 10, and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hellenkamp (4,038,571). Hellenkamp discloses an ultrasonic insert comprising an elongated body having first and second body ends and central axis; a treatment apply tip region coupled to

the first end, the region having a tip end displaced from the first end; a transducer coupled to the second end; an internal fluid flow channel formed at least in part in the body, extending at an angle to the central axis and having first and second fluid flow ends, one flow end located on the body and the other flow end located closer to the tip end; and a transverse channel formed in the body adjacent to the oleo flow end and intersects the flow channel (figure 2). The other flow end is located on the tip region and comprises an elongated opening. The insert includes a piezoelectric coupled to the second end. The transverse channel intersects an external periphery of the body and is off-set from the one flow end. The transverse channel has a width and depth and is capable to establishing a fluid flow rate. The other flow end comprises a spray controlling indentation formed in the exterior surface of the tip region as seen in figure 2. The insert carries a rotary bearing 10. The insert carries an elastomeric handle 4 (column 6 line 41) adjacent to the bearing.

6. Claims 1-7, 9, 10, 12, 13, 16, 21-27, 31-34, 36, 38, 39, 42, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Copeland (6,494,714). Copeland discloses an ultrasonic insert comprising an elongated body 15 having first and second body ends and central axis; a treatment apply tip region coupled to the first end, the region having a tip end displaced from the first end; a transducer coupled to the second end; an internal fluid flow channel 45 formed at least in part in the body, extending at an angle to the central axis and having first and second fluid flow ends, one flow end located on the body and the other flow end located closer to the tip end; and a transverse channel formed in the body adjacent to the oleo flow end and intersects the flow channel (figure 1). The other flow end is located on the tip region and comprises an elongated opening. The insert includes a magnetostrictive transducer 14 coupled to the second

end. The transverse channel intersects an external periphery of the body and is off-set from the one flow end. The transverse channel 42 has a width and depth and is capable to establishing a fluid flow rate. The channel has a width of .014 inch. The other flow end comprises a spray controlling indentation formed in the exterior surface of the tip region as seen in figure 3. The insert carries a rotary bearing 16. Copeland discloses a dental treatment applying apparatus comprising a handle 12 that carries an ultrasonic transducer, a vibrating treatment applying tip portion 20 coupled to the transducer, an internal flow channel formed in a portion, the channel having first and second sections that intersect to form a fluid inlet into the channel of a size (0.014 inch diameter) that is capable of the intended fluid flow rate (figure 1). The sections are substantially perpendicular to one another. One section terminates at a fluid flow output port in the tip portion. The tip portion and transducer are removable from the handle, an elongated body member 15 between the transducer and the tip portion. One section extends from the tip portion to the body member with the second section intersecting the first section in the body member. Copeland discloses an ultrasonic insert comprising a body portion, tip section adjacent one of the ends, a transducer coupled to the other end, an internal fluid flow channel with a transverse slot formed in the body, the channel terminating at a fluid flow output on the tip section.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8, 28, 29, 37, 40, 41, 43, and 45 are rejected as understood, under 35 U.S.C. 103(a) as being unpatentable over Copeland. Copeland discloses an insert that shows the limitations as described above; however, Copeland does not show a range of depth parameter of the transverse channel. It would have been obvious to one of ordinary skill in the art as to the specific range of the depth parameter in that Copeland shows the depth that is of the same order of magnitude as the width parameter. As understood, it would have been obvious to one of ordinary skill in the art to construct a formerly integral structure in two parts as it involves routine skill in the art. It would have been an obvious matter of choice to one of ordinary skill in the art as to the pressure of the fluid intended to be used with the insert.

9. Claims 11, 30, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellenkamp or Copeland in view of Balamuth et al. (3,075,288). Hellenkamp or Copeland discloses an insert that shows the limitations as described above; however, they do not show a flow shut off valve. Balamuth et al. teach an ultrasonic insert comprising a flow shut off valve. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the insert to comprise the valve of Balamuth et al. in order to control the flow of fluid through the passageway.

10. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellenkamp in view of Rahman et al. (2002/0040198). Hellenkamp discloses an insert that shows the limitations as described above; however, Hellenkamp does not show the bearing having first and second bearing parts. Rahman et al. teach an ultrasonic insert comprising first and second bearing parts rotatable relative to one another, the handle and rip region are rotatable together relative to one of the bearing parts. It would have been obvious to one having ordinary

skill in the art at the time the invention was made to modify the insert to comprise the bearing of Rahman et al. in order to effect rotation by applying force only to the insert.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

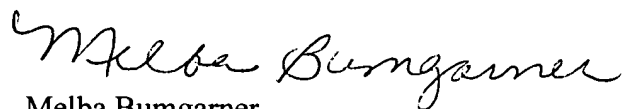
11. Claims 19 and 20 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Hellenkamp in view of Rahman et al. and further in view of Balamuth et al. The modified insert shows the limitations as described above; however, they do not show a fluid shut off. Balamuth et al. teach an ultrasonic insert comprising a flow shut off. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the insert to comprise the flow shut off of Balamuth et al. in order to control the flow of fluid through the passageway.

***Conclusion***

12. Any inquiry concerning this communication from the examiner should be directed to Melba Bumgarner whose telephone number is 571-272-4709. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached at 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melba Bumgarner  
Primary Examiner